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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,281	11/16/2001	Karl Schroedinger	M&N-IT255	7051

7590 02/13/2003

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EXAMINER

NGUYEN, LINH M

ART UNIT	PAPER NUMBER
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2816

DATE MAILED: 02/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application N .

09/992,281

Applicant(s)

SCHROEDINGER, KARL

Examiner

Linh M. Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6 & 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

This is a reply to the Applicant's response submitted on December 9<sup>th</sup>, 2002. According to this response, the Applicant elected Embodiment II including claims 11-17; and therefore, the non-elected claims of Embodiment I including claims 1-10 are withdrawn from consideration.

Prior to preparing this Office Action, the Examiner made a telephone contact with Mr. Ralph E. Locher, the Applicant's Representative, on 0/14/2003 to expectedly resolve several 112/ 1<sup>st</sup> and 2<sup>nd</sup> paragraph issues to clarify the claimed invention and thus to facilitate the art search. However, no expected result was brought about. Mr. Ralph E. Locher advised the Examiner to go forward for a detailed Office Action so that he will have a chance to clearly discuss with his client or Applicant for an appropriate response.

For these unresolved 112/ 1<sup>st</sup> and 2<sup>nd</sup> paragraph issues, the art search could not be effectively performed; and as such, there would be no rejection(s) over prior art provided in this Office Action.

The Applicant is noted that the first part of the previous restriction/election requirement is being provided herein for convenience in review.

#### ***Election/Restrictions***

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

Embodiment I: Figure 3, including claims 1-10, drawn to an apparatus and a corresponding method for producing or generating an output clock signal;

Embodiment II: Figure 4, including claims 11-17, drawn to the structure of a control loop and a corresponding method of producing a clock signal;

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, none of the claims is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

2. A telephone call was made to Mr. Werner H. Stemer on October 30, 2002 to request an oral election to the above restriction requirement, but did not result in an election being made.
3. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement is traversed (37 CFR 1.143).

***Response to the Applicant's election***

4. Applicant's election of Embodiment II including claims 11-17 in Paper No. 11 is acknowledged. Because Applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

The following is a detailed action in reply to the Applicant's election of Embodiment II, which includes claims 11-17.

***Priority***

5. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Specification Objection***

6. The specification is objected to because of the following informalities:

Page 9, line 21, change "Fig. 1" to --Fig. 2--;

Page 10, line 4, change "U4" to --U3--;

Appropriate correction is required.

***Claim Objections/ Minor informalities***

7. Claims 11, 13, and 14 are objected to because of the following informalities:

Claim 11, line 3, insert --an output with-- between "producing" and "a" (second occurrence);

Claim 11, line 6, insert --of a data signal-- between "phase" (first occurrence) and "and";

Claim 13, line 4, delete "for a phase shifter" between "signal" and "and";

Claim 14, line 16, delete "from".

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The Applicant is noted that the line number includes the blank space lines.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 11 and 13 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a controller within the phase shifter to produce signals So, ..., S3, does not reasonably provide enablement for the controller to change over the integration polarity of the charge pump at predetermined switching points based on the detected phase difference as claimed in lines 9-11 of each claim. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make use the invention commensurate in scope with these claims. While it is clear that the specification does lend support to the controller for its feature of producing signals S0, ..., S3 from its switching elements [RS0, ..., RS3], it does not, however, specifically mention how the feature of the controller in changing-over the integration polarity of the charge pump at predetermined switching points based on the detected phase difference is carried out. To make the claimed invention clear, it is suggested that a specific description of how such a change-over of the integration polarity of the charge pump at predetermined switching points with respect to the detected phase difference being carried out should be included in the specification and drawings so as to resolve this existing unclarity.

Claim 12 is also rejected under 35 U.S.C. 112, first paragraph, as it is dependent on claim 11.

10. Claim 14 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the charge pump to receive an input signal and to output an output signal, does not reasonably provide enablement for the output signal to change between the proportional signal and the inversely proportional signal at predetermined switching points at which a predetermined jump in the phase of the output signal takes place as claimed in lines 15-19. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make use the invention commensurate in scope with these claims. While it is clear that the specification provides support to the charge pump with its input and output for respectively receiving an input signal and outputting an output signal, it does not, however, specifically mention a specific structure of the charge pump with its operation in details so as to show how the output signal changes between the proportional signal and the inversely proportional signal at predetermined switching points at which a predetermined jump in the phase of the output signal takes place, as claimed in lines 15-19. It is suggested that a specific structure of the charge pump and its operation in details be included in the specification and drawings to clarify the claimed functions of the charge pump as stated, and such an inclusion of the specific charge pump and its detailed operation would be a remedy to this unclarity.

Claims 15-17 are also rejected under 35 U.S.C. 112, first paragraph, as they are dependent on claim 14.

11. The following is a quotation of *the second paragraph* of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 11-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 11,

- the recitation “said charge pump having an integration polarity” in line 11 renders the claim indefinite since it is not apparent how an integration polarity be possessed in a charge pump, and in addition, such a possession of an integration polarity in the charge pump has not been commonly practiced in the art. Therefore, the Applicant is requested to provide a clear explanation concerning how the integration polarity be possessed in the charge pump along with its functioning with respect to the operation of the charge pump;
- the term “a controller” recited in line 13 renders the claim indefinite as it is believed to be mis-descriptive. This claimed controller is not a separate element since it is clear that, in the specification (page 8, lines 8-10) and figure 4 of the instant application, it is not a separate element but actually a part of the phase shifter.

Clarification is required;

- the recitation “a controller for changing over the integration polarity of said charge pump at predetermined switching points” in lines 13-14 renders the claim indefinite since it is not clearly understood in terms of (i) how the predetermined switching points affect the integration polarity, and (ii) how the predetermined switching points



relate to the operation of the charge pump. Therefore, a clear explanation is required to clarify this claimed subject matter;

- the recitation “the switching points being subject to hysteresis” in line 17 renders the claim indefinite since it is not clear why the switching points are subject to hysteresis, and if not, how the change-over of the integration polarity is being affected as a result. Explanation is required to clarify this claimed subject matter.

With respect to claim 12, the term “said controller” in lines 4-5 renders the claim indefinite as it is believed to be mis-descriptive. This claimed controller is not a separate element since it is clear that, in the specification (page 8, lines 8-10) and figure 4 of the instant application, it is not a separate element but actually a part of the phase shifter. Clarification is required.

With respect to claim 13, the recitation “the switching points being subject to hysteresis” in lines 14-15 renders the claim indefinite since it is not clear why the switching points are subject to hysteresis, and if not, how the change-over of the integration polarity is affected as a result. Explanation is required to clarify this claimed subject matter.

With respect to claim 14, the recitation “the output signal changes between the proportional signal and the inversely proportional signal at predetermined switching points” in lines 15-18 renders the claim indefinite since it is not clear how the switching points affects the change limit of the charge pump output signal between the proportional signal and the inversely proportional signal. Clarification is required.

With respect to claim 15, the recitation “the switching points are subject to hysteresis” in lines 1-2 renders the claim indefinite since it is not clear why the switching points are subject

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to hysteresis, and if not, how the change-over of the integration polarity is affected as a result.

Explanation is required to clarify this claimed subject matter.

With respect to claims 16 and 17, the recitation "the predetermined jump corresponds to a phase return of a predetermined magnitude", in lines 1-3, renders the claims indefinite since it is not clearly understood in terms of (i) how a phase return of a predetermined magnitude is defined, and (ii) how the predetermined jump and the phase return of a predetermined magnitude are related to each other. Full explanation is required to clarify the claimed subject matter.

***Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh M. Nguyen whose telephone number is (703) 305-0414. The examiner can normally be reached on Alternate Mon, Tuesday - Friday from 7:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on (703) 308-4876. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-0142 for regular communications and (703) 305-0142 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Linh M. Nguyen  
Examiner  
Art Unit 2816

LMN  
February 10, 2003

